AMENDMENTS TO THE CLAIMS

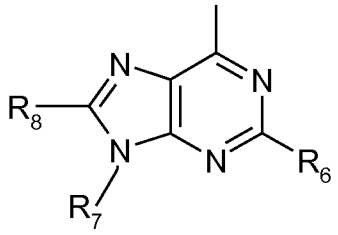
1. (Currently amended) A compound of formula (1)

$R_1–A–X–CH_2–R_3–R_4–L_1$ (1),

wherein:

~~A is a group recognized by O^6-alkylguanine-DNA alkyltransferases (AGT) as a substrate~~

the group R_1-A is a purine radical of formula (2)



(2)

;

X is oxygen ~~or sulfur~~;

R_1 is a group $–R_2–L_2$ or a group R_5;

R_2 and R_4 are, independently of each other, a ~~linker~~ straight or branched chain alkylene group or polyvalent branched chain alkyl group with 1 to 300 carbon atoms, wherein optionally

(a) one or more carbon atoms are replaced by oxygen;

(b) one or more carbon atoms are replaced by nitrogen carrying a hydrogen atom, and the adjacent carbon atom is substituted by oxo;

(c) one or more carbon atoms are replaced by oxygen, and the adjacent carbon atom is substituted by oxo;

(d) the bond between two adjacent carbon atoms is a double or a triple bond;

(e) one or more carbon atoms are replaced by a phenylene, a saturated or unsaturated cycloalkylene, a saturated or unsaturated bicycloalkylene, a bridging heteroaromatic or a bridging saturated or unsaturated heterocyclyl group;

(f) two adjacent carbon atoms are replaced by a disulfide linkage;

or a combination of two or more alkylene and/or modified alkylene groups as defined under (a) to (f) above, optionally containing substituents;

R_3 is an aromatic or a heteroaromatic group, or an optionally substituted 1-alkenylene, 1-alkynylene, 1-cycloalkenylene, or an unsaturated ~~alkyl, cycloalkyl or~~ heterocyclyl group with the double bond connected to CH_2;

R_5 is ~~arylmethyl or heteroarylmethyl or~~ an optionally substituted cycloalkyl, cycloalkenyl or heterocyclyl group;

R_6 is hydrogen, hydroxy or unsubstituted or substituted amino;

one of R_7 and R_8 is R_1 and the other one is hydrogen; and

L_1 ~~is a label,~~ and L_2 are

one or a plurality of same or different labels selected from the group consisting of a spectroscopic probe, a magnetic probe, a contrast reagent, a radioactive moiety, avidin, streptavidin, biotin, a moiety which is capable of crosslinking to other molecules selected from the group consisting of a maleimide, active ester, azide and benzophenone, a tethered metal-chelate which is capable of generating hydroxyl radicals upon exposure to H_2O_2 and ascorbate, malachite green, a moiety covalently attached to a solid support, a lipid, methotrexate, a linear poly(arginine) of D- and/or L-arginine with 6-15 arginine residues, a linear polymer of 6-15 subunits each carrying a guanidinium group, oligomers or short-length polymers of 6-50 subunits, a portion of which have attached guanidinium groups, and parts of a sequence of a HIV-tat protein;

or L_1 is ~~,~~ a bond connecting R_4 to A forming a cyclic substrate, ~~or~~ a further group $–R_3–CH_2–X–A–R_1$, or a nucleic acid or a derivative thereof capable of undergoing base-pairing with its complementary strand; ~~and~~ or

L_2 is a nucleic acid or a derivative thereof capable of undergoing base-pairing with its complementary strand if R_7 is hydrogen~~label or a plurality of same or different labels~~.

2. (Currently amended) The compound according to claim 1, ~~of formula (1)~~ wherein

~~A is a heteroaromatic group containing 1 to 5 nitrogen atoms;~~

~~X is oxygen;~~

~~R_1 is a group R_2–L_2 or a group R_5;~~

~~R_2 and R_4 are, independently of each other, a straight or branched chain alkylene group with 1 to 300 carbon atoms, wherein optionally~~

~~(a) one or more carbon atoms are replaced by oxygen, in particular wherein every third carbon atom is replaced by oxygen, e.g. a poylethyleneoxy group with 1 to 100 ethyleneoxy units;~~

~~(b) one or more carbon atoms are replaced by nitrogen carrying a hydrogen atom, and the adjacent carbon atoms are substituted by oxo, representing an amide function –NH–CO–;~~

~~(c) one or more carbon atoms are replaced by oxygen, and the adjacent carbon atoms are substituted by oxo, representing an ester function –O–CO–;~~

~~(d) the bond between two adjacent carbon atoms is a double or a triple bond, representing a function –CH=CH– or –C≡C–;~~

~~(e) one or more carbon atoms are replaced by a phenylene, a saturated or unsaturated cycloalkylene, a saturated or unsaturated bicycloalkylene, a bridging heteroaromatic or a bridging saturated or unsaturated heterocyclyl group;~~

~~(f) two adjacent carbon atoms are replaced by a disulfide linkage –S–S–;~~

~~or a combination of two or more, especially two or three, alkylene and/or modified alkylene groups as defined under (a) to (f) hereinbefore, optionally containing substituents;~~

R_3 is ~~phenyl~~phenylene, an unsubstituted or substituted mono- or bicyclic bridging heteroaryl group of 5 or 6 rings atoms comprising zero, one, two, three or four ring nitrogen atoms and zero or one oxygen atom and zero or one sulfur atom, with the proviso that at least one ring carbon atom is replaced by a nitrogen, oxygen or sulfur atom, ~~1-alkenyl, 1-alkinyl, 1-cyclohexenyl~~ 1-alkenylene, 1-alkinylene, 1-cyclohexenylene with 3 to 7 carbon atoms, wherein the double or triple bond is connected to CH_2, or an optionally substituted unsaturated bridging heterocyclyl group with 3 to 12 atoms and 1 to 5 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur, and a double bond in the position connecting the heterocyclyl group to ~~methylene~~ CH_2; and

R_5 is ~~optionally substituted phenylmethyl or naphthylmethyl; optionally substituted heteroarylmethyl wherein heteroaryl is a mono- or bicyclic heteroaryl group comprising zero, one, two, three or four ring nitrogen atoms and zero or one oxygen atom and zero or one sulfur atom, with the proviso that at least one ring carbon atom is replaced by a nitrogen, oxygen or sulfur atom, and which has 5 to 12 ring atoms;~~ optionally substituted cycloalkyl with 3 to 7 carbon atoms; optionally substituted cycloalkenyl with 5 to 7 carbon atoms; or optionally

substituted saturated or unsaturated heterocyclyl with 3 to 12 atoms, and 1 to 5 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur~~;~~

~~L_1 is one or a plurality of same or different labels selected from a spectroscopic probe, a magnetic probe, a contrast reagent, a molecule which is one part of a specific binding pair which is capable of specifically binding to a partner, a molecule that is suspected to interact with other biomolecules, a library of molecules that are suspected to interact with other biomolecules, a molecule which is capable of crosslinking to other molecules, a molecule which is capable of generating hydroxyl radicals upon exposure to H_2O_2 and ascorbate, a molecule which is capable of generating reactive radicals upon irradiation with light, a molecule covalently attached to a solid support, a nucleic acid or a derivative thereof capable of undergoing base-pairing with its complementary strand, a lipid or other hydrophobic molecule with membrane-inserting properties, a biomolecule with desirable enzymatic, chemical or physical properties, a bond connecting R_4 to A forming a cyclic substrate, and a further group $-R_3-CH_2-X-A-R_1$; and~~

~~L_2 is one or a plurality of same or different labels selected from a spectroscopic probe, a magnetic probe, a contrast reagent, a molecule which is one part of a specific binding pair which is capable of specifically binding to a partner, a molecule that is suspected to interact with other biomolecules, a library of molecules that are suspected to interact with other biomolecules, a molecule which is capable of crosslinking to other molecules, a molecule which is capable of generating hydroxyl radicals upon exposure to H_2O_2 and ascorbate, a molecule which is capable of generating reactive radicals upon irradiation with light, a molecule covalently attached to a solid support, a lipid or other hydrophobic molecule with membrane-inserting properties, and a biomolecule with desirable enzymatic, chemical or physical properties~~.

3. (Cancelled)

4. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~X is oxygen and R_3 is phenyl~~ R_3 is phenylene.

5. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~X is oxygen and R_3 is thienyl~~ R_3 is thienylene.

6. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~the group R_1–A is a purine radical of formula (2),~~ R_6 is unsubstituted amino, R_7 is R_1, and R_8 is hydrogen~~, and X is oxygen~~.

7. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~the group R_1–A is a purine radical of formula (2),~~ R_6 is unsubstituted amino, R_7 is a group $-R_2-L_2$, and R_8 is hydrogen~~, and X is oxygen~~.

8. (Currently amended) The compound according to claim 7, wherein L_2 is a spectroscopic probe.

9. (Currently amended) The compound according to claim 7, wherein L_1 and L_2 are spectroscopic probes.

10. (Currently amended) The compound according to claim 9, wherein L_1 and L_2 represent a fluorescence donor / fluorescence quencher pair.

11. (Currently amended) The compound according to claim 10, wherein L_1 and L_2 represent a FRET pair.

12. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~the group R_1–A is a purine radical of formula (2),~~ R_6 is unsubstituted amino, R_7 is a group R_5, and R_8 is hydrogen~~, and X is oxygen~~.

13. (Currently amended) The compound according to claim 12, wherein R_5 is cyclopentyl.

14. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~the group R_1 A is a purine radical of formula (2),~~ R_6 is unsubstituted amino, R_7 is hydrogen, and R_8 is R_1~~, and X is oxygen~~.

15. (Currently amended) The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~the group R_1 A is a purine radical of formula (2),~~ R_6 is unsubstituted amino, R_7 is hydrogen, and R_8 is a group $-R_2-L_2$~~, and X is oxygen~~.

16. (Currently amended) The compound according to claim 15, wherein L_2 is a spectroscopic probe.

17. (Currently amended) The compound according to claim 15, wherein L_1 and L_2 are spectroscopic probes.

18. (Currently amended) The compound according to claim 17, wherein L_1 and L_2 represent a fluorescence donor / fluorescence quencher pair.

19. (Currently amended) The compound according to claim 18, wherein L_1 and L_2 represent a FRET pair.

20. (Currently amended) The compound according to claim 15, wherein L_2 is avidin, streptavidin or biotin~~a molecule representing one part of a specific binding pair~~.

21. (Currently amended) The compound according to claim 15, wherein L_2 is a moiety ~~molecule~~ covalently attached to a solid support.

22. (Currently amended) The compound according to claim 15, wherein L_2 is a linear poly(arginine) of D- and/or L-arginine with 6-15 arginine residues, a linear polymer of 6-15 subunits each carrying a guanidinium group, oligomers or short-length polymers of 6-50 subunits, a portion of which have attached guanidinium groups, or parts of a sequence of a HIV-tat protein ~~cell membrane transport enhancer group~~.

23-43. (Cancelled)

44. (Currently amended) A method for detecting and/or manipulating a protein of interest, wherein the protein of interest is ~~incorporated into~~ fused to an AGT ~~fusion protein~~, the AGT fusion protein is contacted with a compound of formula (1) according to claim 1, and the AGT fusion protein is detected and optionally further manipulated using the label L_1 in a system designed for recognizing and/or handling the label.

45. (Original) The method according to claim 44, wherein in the compound of formula (1) label L_2 is a solid support, and the AGT fusion protein contacted with the compound of formula (1) is separated from the compound of formula (1) by filtration or centrifugation or separation of magnetic beads.

46. (Currently amended) The method according to claim 44, wherein in the compound of formula (1) label L_1 is one member and label L_2 the other member of two interacting spectroscopic probes L_1 / L_2, wherein energy can be transferred nonradiatively through dynamic or static quenching, and the AGT fusion protein is detected by fluorescence.

47. (Currently amended) The method according to claim 44 for detecting and/or manipulating a protein of interest, wherein the protein of interest is fused with a mutant AGT, the mutant AGT fusion protein is contacted with a mixture of

(a) a compound of formula (1) wherein R_1 is a group R_5, and which ~~is not recognized by~~ does not react with the mutant AGT, and

(b) another compound of formula (1), ~~recognized by~~ which reacts with the mutant AGT fusion protein,

and the mutant AGT fusion protein is detected and optionally further manipulated using the label in a system designed for recognizing and/or handling the label.